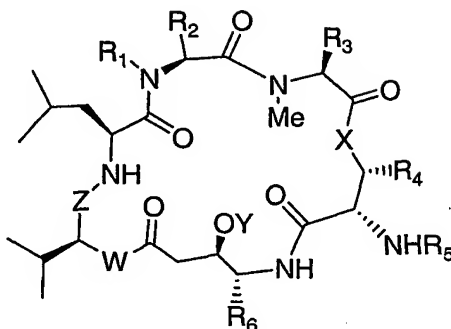


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WHAT IS CLAIMED IS:

1. A compound of Formula I:



I

or a pharmaceutically acceptable salt thereof, wherein

R^1 and R^2 are independently H or C_{1-4} alkyl, or R^1 and R^2 together form the alkyl ring of a proline or homoproline residue;

R^3 is selected from the group consisting of a side chain of an amino acid and a first fluorophore;

R^4 is H or CH_3 ;

R^5 is H, an amine protecting group, an amino acid residue, a polypeptide, a peptide which contains a second fluorophore, a chemical moiety bound to a solid support, or a moiety containing from about 1 to about 50 non-hydrogen atoms;

R^6 is an isoleucine side chain or a valine side chain;

W is O or NH;

X is O or NH; and

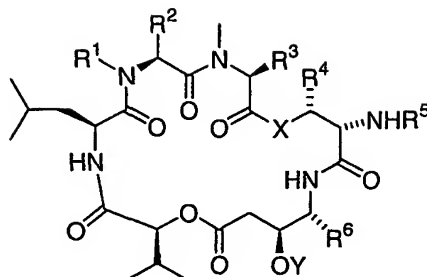
Y is H or a hydroxyl protecting group;

Z is C(O) or C(O)-CH(CH₃)-C(O);

provided that if R^1 and R^2 together form the alkyl ring of a proline residue, R^4 is methyl, and X is O, then R^3 is naphthylmethyl.

2. The compound according to claim 1 having the formula

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or a pharmaceutically acceptable salt thereof, wherein

R^1 and R^2 are independently H or C_{1-4} alkyl, or R^1 and R^2 together form the alkyl ring of a proline residue;

R^3 is selected from the group consisting of a side chain of an amino acid and a first fluorophore;

R^4 is H or CH_3 ;

R^5 is H, an amine protecting group, an amino acid residue, a polypeptide, a peptide which contains a second fluorophore, a chemical moiety bound to a solid support, or a moiety containing from about 1 to about 50 non-hydrogen atoms;

R^6 is an isoleucine side chain or a valine side chain;

X is O or NH; and

Y is H or a hydroxyl protecting group;

provided that if R^1 and R^2 together form the alkyl ring of a proline residue, R^4 is methyl, and X is O, then R^3 is naphthylmethyl.

3. The compound according to claim 2, wherein R^1 is H and R^2 is methyl.
4. The compound according to claim 2, wherein R^1 and R^2 are methyl.
5. The compound according to claim 2, wherein R^1 and R^2 together form the alkyl ring of a proline residue.

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6. The compound according to claim 2, wherein R^3 is a side chain of an amino acid.
7. The compound according to claim 2, wherein R^3 is naphthylmethyl.
8. The compound according to claim 2, wherein R^3 is a benzyl group optionally substituted with OH, OCH₃, CO(C₆H₅), F, Cl, Br, I, CH₃, or C₂H₅.
9. The compound according to claim 2, wherein R^3 contains a fluorophore.
10. The compound according to claim 2, wherein R^4 is CH₃.
11. The compound according to claim 2, wherein R^4 is H.
12. The compound according to claim 2, wherein R^5 is H.
13. The compound according to claim 2, wherein R^5 is an amine protecting group.
14. The compound according to claim 2, wherein R^5 is an amino acid residue or a polypeptide.
15. The compound according to claim 2, wherein R^5 contains a fluorophore.
16. The compound according to claim 2, wherein R^5 is selected from the group consisting of
-(*N*-methyl)leucine;
-(*N*-methyl)leucine-proline;
-(*N*-CBz-*N*-methyl)leucine;
-(*N*-methyl)leucine-proline-lactate;
-(*N*-methyl)leucine-proline-pyruvate;
-(*N*-methyl)leucine-proline-lactate-glutamine-pyroglutamate;
-(*N*-methyl)leucine-proline-lactate-glutamine-cyclopentanoate;

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-(*N*-methyl)leucine-proline-lactate-leucine-pyroglutamate;
-(*N*-methyl)leucine-proline-lactate-glutamine-cyclopentanoate;
-(*N*-methyl)leucine-proline-alanine-leucine-pyroglutamate, and
-(*N*-methyl)leucine-proline-(*N*-methyl)alanine-leucine-pyroglutamate.

17. The compound according to claim 2, wherein R⁶ is a valine side chain.
18. The compound according to claim 2, wherein R⁶ is a leucine side chain.
19. The compound according to claim 2, wherein Y is H.
20. The compound according to claim 2, wherein Y is a hydroxyl protecting group.
21. The compound according to claim 2, wherein X is O.
22. The compound according to claim 2, wherein X is NH.
23. The compound according to claim 2, wherein R¹ and R² together form the alkyl ring of a proline residue; R³ is a benzyl group optionally substituted with one or more selected from the group consisting of OH, OCH₃, CO(C₆H₅), F, Cl, Br, I, CH₃, and C₂H₅; R⁴ is H; R⁶ is a valine side chain; X is O; and Y is H.
24. The compound according to claim 2, wherein R¹ is H; R² is CH₃; R³ is a benzyl group optionally substituted with one or more selected from the group consisting of OH, OCH₃, CO(C₆H₅), F, Cl, Br, I, CH₃, and C₂H₅; R⁴ is CH₃; R⁵ is as defined above; R⁶ is a valine side chain; X is O; and Y is H.
25. The compound according to claim 2, wherein R¹ is CH₃; R² is CH₃; R³ is a benzyl group optionally substituted with one or more selected from the

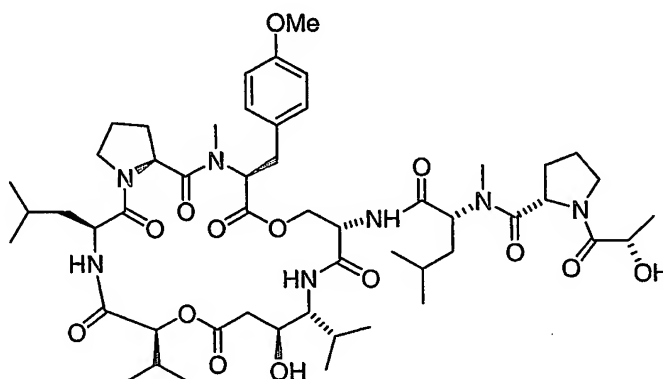
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group consisting of OH, OCH₃, CO(C₆H₅), F, Cl, Br, I, CH₃, and C₂H₅, preferably OCH₃; R⁴ is CH₃; R⁶ is a valine side chain; X is O; and Y is H.

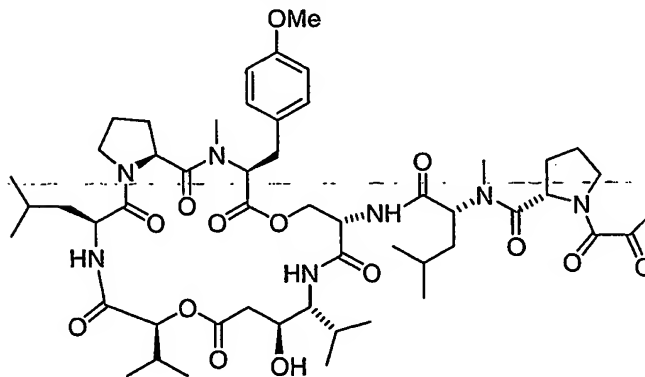
26. The compound according to claim 2, wherein R¹ and R² together form the alkyl ring of a proline residue; R³ is a naphthylmethyl group; R⁴ is CH₃; R⁶ is a valine side chain; X is O; and Y is H.

27. The compound according to claim 2, wherein R⁵ consists of 1-5 amino acid residues.

28. The compound according to claim 2, having the structure

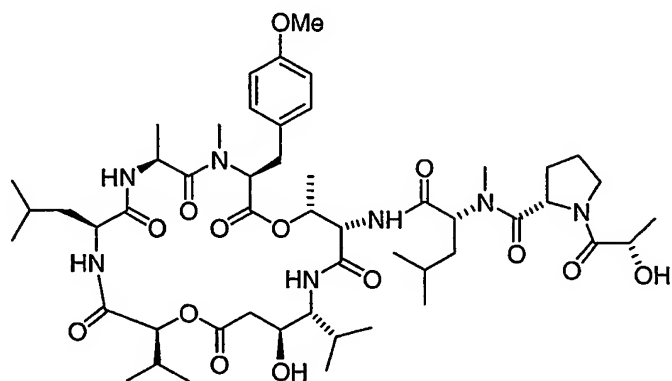


29. The compound according to claim 2, having the structure

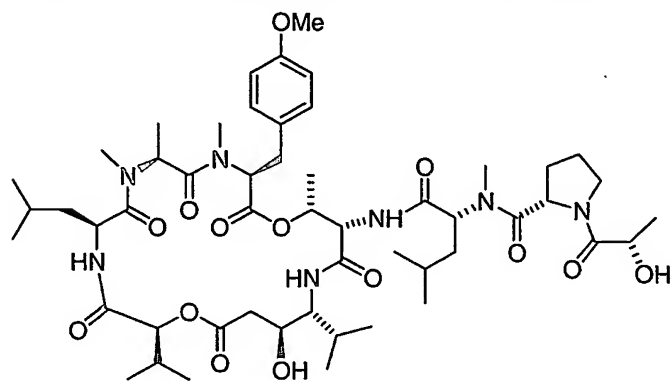


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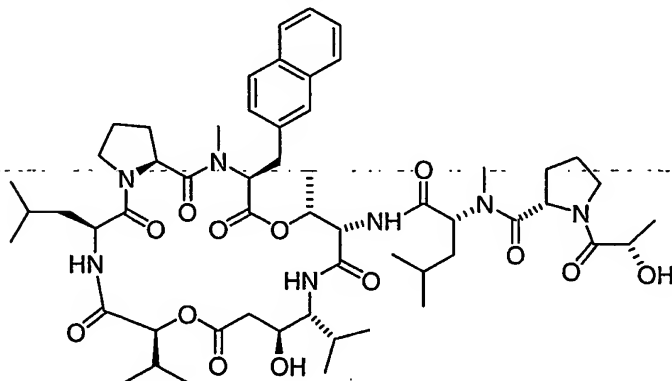
30. The compound according to claim 2, having the structure



31. The compound according to claim 2, having the structure

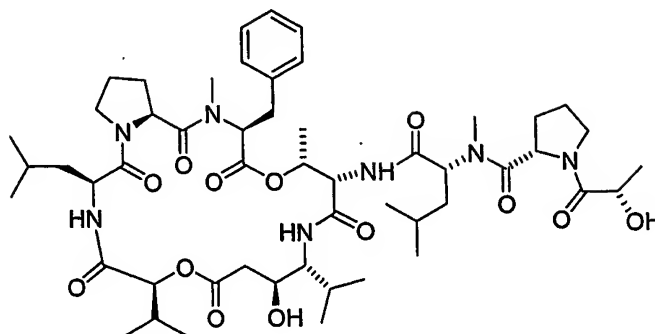


32. The compound according to claim 2, having the structure



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33. A compound having the structure



34. A composition comprising a compound according to any of one of claims 1-33 and a pharmaceutically compatible excipient or carrier.

35. A method of inhibiting, treating, or preventing tumorigenesis, comprising contacting a cell with an effective amount of a compound according to any one of claims 1-33.

36. A method of preventing or inhibiting the growth of a cancer cell, comprising contacting a cancer cell with an effective amount of a compound according to any one of claims 1-33.

37. A method of inhibiting or preventing protein synthesis, comprising contacting a cell or cellular component with an effective amount of a compound of any one of claims 1-33.

38. A method of enhancing apoptosis, comprising contacting a cell or cellular component with an effective amount of a compound according to any one of claims 1-33.

39. A method of providing immunosuppressive therapy, comprising administering to a subject in need thereof an effective amount of a compound according to any one of claims 1-33.